

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014988**Date Inspected:** 15-Jun-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

CWI Name:	Bernard Docena, Jesse Cayabyab			CWI Present:	Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A
Bridge No:	34-0006			Component:	SAS OBG		

Summary of Items Observed:

The Quality Assurance (QA) Inspector, Rick Bettencourt was on site at the job site between the times noted above. The QA Inspector was on site to randomly observe the in process welding and inspection of the weld joints identified 4W/5W-A/D, 3W/4W-C, 1W/2W-D/S and the following observations were made:

4W/5W-A

The QA Inspector noted the above identified weld joint was completed upon the arrival of the QA Inspector. The QA Inspector noted the weld appeared to have been ground flush. No welding was performed on the QA Inspectors shift.

4W/5W-D

The QA Inspector randomly observed the ABF welding personnel Mike Maday and Bryce Howell using the SAW process for production welding. This QA Inspector randomly observed QC Inspector Bernard Docena monitoring the welding and verify the following welding parameters; 570 amperes and 33 volts with a 400mm per minute travel speed. The welding observed appeared to comply with WPS - ABF-WPS-D15-4042B-1. The QA Inspector noted the SAW fill passes were 60% completed on the previous day shift. The QA Inspector noted some minor grinding was performed prior to the SAW fill passes being continued. After the grinding was completed the SAW fill passes were being performed for the remainder of the shift. The QA Inspector randomly observed the SAW fill passes stopped approximately 600mm from the longitudinal diaphragm due to constraints with the SAW machine and track. The QA Inspector noted the remainder of the weld which cannot be reached with SAW, will be completed manually.

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3W/4W-C2

Upon the arrival of the QA Inspector it was observed the above identified weld joint appeared to be approximately 50% complete. The QA Inspector randomly observed the ABF welder was setting up the flux cored arc welding (FCAW) machine to complete the weld segment identified above. The QA Inspector randomly observed the ABF welder Song Tao Huang had previously started the induction Heating blankets to ensure the minimum required preheat of 150°F was achieved prior to welding. The QA Inspector randomly verified utilizing a 150°F temperature indicating marker and noted the minimum required preheat had been achieved. The QA Inspector randomly observed the SE QC Inspector identified as Bernard Docena set the FCAW machine to the parameters of the approved WPS. The QA Inspector randomly observed the FCAW parameters were 247Amps 24Volts and a travel speed of 380mm/min. The QA Inspector randomly observed the ABF welder Song Toa Huang begin the FCAW fill pass in the bottom 2400mm of the above identified weld joint. The QA Inspector noted the root and “hot” pass was completed on the previous day shift. The QA Inspector randomly observed the ABF welder performing the FCAW fill pass for the remainder of the shift.

1W/2W-D/S

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The QA Inspector randomly observed the ABF welder identified as James Zhen performing SMAW repairs on the tops of the longitudinal stiffener plates. The QA Inspector noted the welder was weld building the top of the stiffener to correct some low areas of the competed vertical complete joint penetration groove weld. The QA Inspector randomly observed the ABF welder utilizing the 1/8” E7018 low hydrogen electrodes with 137 Amps. The QA Inspector randomly observed the ABF welder perform grinding tasks of the weld passes after the area was built up.

The QA Inspector spent the remainder of the shift updating the Caltrans QA tracking log and production chart.

Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916)-813-3677, who represents the Office of Structural Materials for your project.

Inspected By:	Bettencourt,Rick	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
